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Measuring Ambivalence about Government in the 2006 ANES Pilot Study

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Abstract: Although scholars increasingly recognize that people often possess multiple and even conflicting attitudes about a given topic, our understanding of the nature, causes, and consequences of such attitudinal ambivalence is limited by a lack of consensus as to how the concept should be operationalized. In this paper, we examine three separate measures (one subjective, two operative) of ambivalence regarding "the federal government in Washington" that were asked in the 2006 ANES Pilot Study. Our findings indicate that while the operative measures are less susceptible to question-order and response-order effects, none of the three indicators fares particularly well in various other tests of construct validity.

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Conflict is the root of politics. Often, when we think about political conflict, what comes to mind are the issues that divide northerners from southerners, haves from have-nots, moralists from secularists, minorities from majorities, and women from men. After all, as James Madison reminded us in *Federalist 10*, differences in interests, abilities, and lifestyles that give rise to conflicts *between* people are "sown in the nature of man." Conflict, however, also exists *within* individuals' own thought processes. Poor people are more likely than rich people to see and to value the societal advantages that accrue from social welfare policies, yet many among the ranks of rich and poor alike might value *both* economic opportunity *and* a tightly woven social safety net. Environmentalists are more likely than local developers to prefer conservation measures to unbridled economic growth, but each side (and especially those on *neither* side) might see a mix of benefits *and* drawbacks to the regulation of property by government. Even on the culturally divisive issue of abortion, many Americans feel torn between two "rights" – that of the woman trying to decide whether to abort, and that of the fetus whose fate rests with her decision.

As obvious as it may be that such conflicted feelings do exist, for many years researchers in both social psychology and political science (see Eagly and Chaiken 1993; Zaller and Feldman 1992) generally conceptualized attitudes as being unidimensional. Thurstone's (1928; Thurstone and Chave 1929) seminal work on attitude measurement, for example, characterized attitudes as bipolar, ranging from positive (or favorable) to negative (or unfavorable), with a neutral point in between. In his review of attitude research, Allport (1935) even suggested that the bipolarity of attitudes (favorable vs. unfavorable) were their most distinct feature. This seemed to make perfect sense because on most issues people undoubtedly do think in bipolar terms. They either like something or they don't, support a policy/party/candidate or oppose it. Similarly, in political commentary, political leaders are described as being either "liberal" or "conservative" (or perhaps

"middle-of-the-road") – and, depending on their own predispositions, voters are thought to react accordingly, i.e., positively or negatively, but probably not both at the same time. Research over the years, though, has made it clear that the unidimensional model does not capture the entire story.[1]

Psychologists and political scientists have increasingly come to embrace the idea that people do not always have a single "true" attitude about a particular topic, but rather a store of multiple and sometimes contradictory attitudes that they might draw upon when answering questions in an opinion survey, deciding which candidate to vote for in an election, or otherwise choosing from among alternative scenarios or courses of action (Zaller and Feldman 1992; also see Zaller 1992). When someone's evaluations, beliefs, or emotions concerning an attitude object are in conflict with one another, we might describe that person as being *ambivalent* (Alvarez and Brehm 1995; Eagly and Chaiken 1993; Martinez, Craig, and Kane 2005). Defining ambivalence is one thing,[2] however, while measuring it is quite another. As the concept received greater attention in recent years, scholars began to develop and test a variety of different approaches. Whereas some of these are indirect and inferential (Zaller and Feldman 1992; Alvarez and Brehm 1995, 2002), there have been numerous attempts to measure individual-level ambivalence directly using both objective (Kaplan 1972; Thompson, Zanna, and Griffin 1995) and subjective (Priester and Petty 1996; Tourangeau, Rasinski, Bradburn, and D'Andrade 1989; Holbrook and Krosnick 2005) indicators. The present study focuses on individuals, comparing the construct validity of objective (or operative) and subjective (or meta-attitudinal) measures of ambivalence toward government that were included in the 2006 ANES Pilot Study.[3]

Measuring Ambivalence toward Government

One of the most dramatic trends in American public opinion over the past half century

involves the loss of public confidence in government (Chanley, Rudolph, and Rahn 2000; Pew Center for the People and the Press 2006; Keele 2007). Although there is no consensus regarding the precise origins and meaning of this trend, it seems clear that at least part of the explanation is performance-based, i.e., with many people expressing dissatisfaction because they don't believe that governmental leaders and institutions have dealt effectively with important problems facing the nation (Citrin and Luks 2001; Stimson 2004; Hetherington 2005). Other factors undoubtedly matter as well (Hibbing and Theiss-Morse 2001; Keele 2007), but our interest here lies with the possibility that the relationship between rulers and ruled may not be quite as precarious as it appears to be at first glance. Some scholars maintain that a lack of confidence in government should be viewed as the norm in American politics and, consequently, that the long-term decline is less in need of explanation than are the higher trust levels observed in the early 1960s and the periodic spikes that occur during periods of war or national crisis (Alford 2001). Others have suggested that the most frequently employed indicators of concepts such as political trust are measuring traditional American *skepticism* about government rather than active mistrust, and that only the latter – which probably has not changed much in recent years – is likely to have serious consequences for governability or system stability (Cook and Gronke 2005; Craig, Gainous, and Martinez 2006).

Alternatively, perhaps it is *ambivalence* more than skepticism that characterizes citizens' attitudes about government today. Students of public opinion during the Truman-Eisenhower era often described the public as being of two minds in their attitudes about government. Hyman and Sheatsley (1954; also see Mitchell 1959), for example, reported that ambivalence was evident in the fact that many people criticized almost any government agency they were asked about while simultaneously expressing great pride in officeholders and institutions, and opposed government

interference with business while nonetheless expecting elected leaders to solve pressing social problems.

More recently, McGraw and Bartels (2005) examined ANES data to determine whether citizens exhibited inconsistency (or conflict) in their evaluations of Congress, President Clinton, and the Supreme Court with regard to four characteristics: doesn't get much accomplished, too involved in partisan politics, doesn't care what ordinary people think, and corrupt. They found that *cognitive* ambivalence toward each of the three branches of the national government was fairly common during the late 1990s, but that ambivalence in one instance did not necessarily imply ambivalence across the board (correlations between the different sets of indicators ranged from moderate to nonexistent). In a survey of registered voters in Florida, Craig, Gainous, and Martinez (2006) found that most respondents experienced some degree of *affective* ambivalence toward the three levels of government in the United States (national, state, local); their analysis also indicated that those who were ambivalent toward one level tended to be ambivalent toward others as well (though the relationships were of fairly modest magnitude), and that ambivalence and political trust were unrelated, i.e., the former was as common among individuals with a positive view of government as it was among those whose outlook was more critical.

Our understanding of the nature, causes, and consequences of attitudinal ambivalence is limited, however, by a difference of opinion among scholars as to how the concept should be operationalized. In particular, prior research suggests that attributes of attitudes (of which ambivalence is one, along with importance, strength, commitment, and others) can be measured in surveys either *subjectively*, by asking respondents to "self-diagnose" their own attitude state, or *operatively*, by asking questions designed to reveal symptoms of the attitude state (Bassili 1996).[4] A subjective approach is attractive largely because of its simplicity. Asking respondents how

certain they are, or how *conflicted* they feel, about an attitude they have just expressed is easy to do; such questions are usually quick to administer, they yield a direct and pre-coded measure of the attitude attribute, and they help to maintain the "flow" of conversation between interviewer and respondent. Especially from the perspective of survey design, there is much to recommend the use of subjective measures of ambivalence.

Subjective measures may fail, however, if interviewers are asking respondents to tell us more than they can actually know. Although well-designed surveys should enable people to more or less accurately report on their thoughts and feelings, respondents often miss the mark when they try to describe the psychological attributes of those thoughts and feelings or the mental processes that led to them (Nisbett and Wilson 1977). In the case of ambivalence, self-reports are accurate only if people *recognize* attitude conflict, *store* the perception or experience of conflict in long-term memory, and are able to *retrieve* that perception when forming a response to the survey question about conflict. Unfortunately, even if attitude attributes are not well-represented in memory, subjective measures may still generate reports of "non-attributes" from individuals who search for clues (heuristics) from the survey context that can help them provide answers to questions and thereby keep the "conversation" going (Bassili 1996: 638-639). Consequently, while subjective measures of ambivalence are relatively easy to administer, there is reason to doubt that they are actually measuring what they intend to measure.

In contrast, operative measures of ambivalence are based on questions that reveal trace evidence of attitude conflict. Following a procedure outlined by Thompson, Zanna and Griffin (1995), our measurement strategy in a series of prior studies has been to ask respondents for their separate positive and negative feelings about an issue (Craig, Kane, and Martinez 2002; Craig, Martinez, Kane, and Gainous 2005; Gainous and Martinez 2005) and to regard those who offered

a mix of both as ambivalent. While this approach is consistent with the standard conception of ambivalence, asking people to provide separate favorable and unfavorable evaluations about multiple attitude objects in a single survey can be cumbersome, tedious, and expensive. Scholars also have utilized other operative measures, of varying degrees of complexity; some of these are based, for example, on open-ended likes/dislikes of parties and candidates (Lavine 2001; Basinger and Lavine 2005), social group feeling thermometers (Lavine and Steenbergen 2005), and responses to closed-ended questions that tap respondents' political values (Rudolph 2005), policy positions (Cantril and Cantril 1999), emotional states (Citrin and Luks 2005), and the traits they ascribe to political leaders and institutions (McGraw and Bartels 2005).

Our objective in this paper is to assess the validity of three measures of ambivalence, two operative and one subjective. We do so by determining, first, the extent to which the different measures are more or less resistant to context (question order and wording) effects within the survey; and, second, whether they moderate either the stability of attitudes over time (Craig, Martinez, and Kane 2005; Armitage and Connor 2000; Bassili 1996) or the impact of an attitude on other attitudes and behavior (Armitage and Connor 2000; Craig, Martinez, Kane, and Gainous 2005). In addition, we examine the relationship between the three measures of ambivalence and three other theoretically relevant variables: political interest, party identification, and support for divided government.

Data and Questions

As noted above, the 2006 ANES Pilot Study[5] included one "self-diagnosis" and two sets of questions that were used construct operative measures of ambivalence regarding the federal government. The subjective (or meta-ambivalence; see Holbrook and Krosnick 2005) item is worded as follows:

"How conflicting are your thoughts and feelings about the federal government in Washington?" (V06P639)

Half of the sample was randomly assigned to have response options for this question and others in the Pilot Study read to them in forward order ("extremely conflicting, very conflicting, moderately conflicting, slightly conflicting, or not conflicting at all"), while the other half heard the same list presented in reverse order (beginning with "not conflicting at all"). In Table 1, we see that respondents indicated higher levels of ambivalence when the most conflicting response options were presented first.

Table 1 about here

The set of questions that forms the basis for our own operative measure of ambivalence is based on experimental work in social psychology, as adapted for use in large-N surveys (Craig, Kane, and Martinez 2002). The technique is a version of the semantic differential (Osgood, Suci, and Tannenbaum 1957), modified by Kaplan (1972) in an effort to show that people's overall attitudes are made up of both positive and negative elements. In order to separate the two, Kaplan divided semantic differential scales at the neutral point and asked respondents to indicate both how positively and how negatively they viewed an attitude object.

Following this model, half of the ANES Pilot Study sample was asked the following sequence of questions:

"You might have favorable thoughts or feelings about the federal government in Washington. Or you might have unfavorable thoughts or feelings about the federal government in Washington. Or you might have some of each. I would like to ask you first about any favorable thoughts and feelings you might have about the

federal government in Washington. Then in a moment, I'll ask you some separate questions about any unfavorable thoughts and feelings you might have."

- "First, do you have ANY favorable thoughts or feelings about the federal government in Washington, or do you NOT have any?" (V06P635)
- (If yes) "How favorable are your favorable thoughts and feelings about the federal government in Washington?" (V06P636)
- "Do you have ANY unfavorable thoughts or feelings about the federal government in Washington, or do you NOT have any?" (V06P637)
- (If yes) "How unfavorable are your unfavorable thoughts and feelings about the federal government in Washington?" (V06P638)

Respondents who were selected for the forward response options in the meta-ambivalence question also were presented with forward response options to both V06P636 ("extremely favorable, very favorable, moderately favorable, or slightly favorable") and V06P638 ("extremely unfavorable, very unfavorable, moderately unfavorable, or slightly unfavorable"). Everyone else was given the reverse options to those questions ("slightly favorable" presented first in V06P636, "slightly unfavorable" in V06P638). According to the results in Table 2, there were no significant order effects evident on any of these questions.

Table 2 about here

Based on people's answers to the four operative measures, we calculated an ambivalence score using an algorithm developed by Thompson, Zanna, and Griffin (1995):

$$\text{Operative Ambivalence} = [(P + N)/2] - |P - N|$$

where P is the positive (favorable) reaction score and N is the negative (unfavorable) reaction score. Scores for each item range from –2.0 ("extremely" positive and no negative thoughts or

feelings, or "extremely" negative and no positive) to +4.0 ("extremely" positive *and* negative thoughts or feelings for the same statement; see Craig, Kane, and Martinez 2002: 291-92). The mean operative ambivalence score for those presented with the forward response options ("extremely favorable" and "extremely unfavorable") first was .165, and the mean for the reverse-option group was -.041; this difference is statistically trivial ($t = 1.430$, $p = .154$).

A second operative measure of ambivalence about the federal government was derived from a pair of open-ended questions posed to the half-sample of respondents who were *not* asked for their separate favorable/unfavorable thoughts and feelings. The questions were as follows:

> "Is there anything in particular that you like about the federal government in Washington? What is that?" (V06P640)
>
> "Is there anything in particular that you dislike about the federal government in Washington? What is that?" (V06P642)

Respondents were invited to offer as many likes and dislikes as they wanted, though most were fairly terse in their answers to these questions. Roughly six in ten (62.5%) said that there was nothing they liked about the government in Washington, while the median respondent articulated a single dislike. A few were more loquacious: one person offered six likes, and eight respondents reported six or more dislikes (one actually reported ten). Using the same algorithm as employed with the favorable/unfavorable evaluations described above, we calculated a second operative ambivalence score based on the number of likes and dislikes (V06P641 and V06P643, respectively) provided by each respondent, recoding the maximum number of likes or dislikes to five in order to reduce the impact of outlying responses (cf. Basinger and Lavine 2005; Lavine and Steenbergen 2005). Figure 1 shows that the distributions of both operative ambivalence

measures are centered at zero, though the measure based on likes/dislikes is somewhat more peaked than the one based on favorable/unfavorable thoughts and feelings.

Figure 1 about here

In sum, all 675 Pilot Study respondents were asked the meta-ambivalence question, half were asked the operative favorable/unfavorable questions, and the other half were asked the operative likes/dislikes questions. Each half-sample was further divided into groups that were asked either the meta-ambivalence question prior to the operative questions, or the operative questions prior to the meta-ambivalence question. Finally, those groups were split again, with some people receiving the forward response options on the meta-ambivalence and operative favorable/unfavorable questions, and others receiving the reverse options as shown in Table 3.

Table 3 about here

Analysis of Ambivalence Measures

Question-Order and Response-Order Effects

Results show that scores on the subjective (meta-ambivalence) measure were susceptible to both question-order and response-order effects. Respondents who answered meta-ambivalence and the operative favorable/unfavorable questions reported higher levels of internal conflict when the former was asked first (respective means of 2.962 and 2.522, $t = 3.624$, $p < .001$); similarly, those who answered meta-ambivalence in combination with the likes/dislikes reported higher conflict when presented with the subjective measure first (respective means of 3.086 and 2.710, $t = 3.344$, $p = .001$). It thus appears that respondents' subjective assessments of internal conflict are somehow dampened when they are initially asked to express their favorable and unfavorable thoughts, or their likes and dislikes, regarding the federal government. That is, when confronted with the operative questions first, some people conclude that they are not as conflicted as they

might otherwise have believed to be the case (see Bishop, Oldendick, and Tuchfarber 1984). In contrast, the effects of question order on respondents' operative ambivalence scores are not statistically significant; those who were asked the meta-ambivalence questions first had slightly higher mean scores on the operative measures (.162 to -.035 on the favorable/unfavorable measure, -.028 to -.096 on the likes/dislikes measure), but those differences could be attributable to sampling ($t = 1.367$, $p = .173$ on the former, $t = 0.717$, $p = .474$ on the latter).

There also is a significant interaction effect of response order and question order on individuals' meta-ambivalence scores. As noted earlier (see Table 1), respondents who heard the "extremely conflicting, very conflicting . . ." response options first reported, on average, a higher level of internal conflict than those who were presented with the reverse sequence (beginning with "not conflicting at all"; $F = 11.17$, df = 1, $p < 0.001$). As shown in Table 4, this effect is especially pronounced among those who answered the meta-ambivalence question following the operative favorable/unfavorable items (F on the interaction term = 2.920, df = 3, $p = 0.033$). In contrast, the analysis of variance results portrayed in the middle and rightmost columns of the table indicates that neither operative measure of ambivalence was significantly affected by question order ($F = 1.19$, df = 1, $p = .276$ for favorable/unfavorable; $F = 0.58$, df = 1, $p = .445$ for likes/dislikes), response order in the meta-ambivalence question ($F = 1.29$, df = 1, $p = .257$ for favorable/unfavorable; $F = 0.40$, df = 1, $p = .547$ for likes/dislikes), or their interaction ($F = 1.52$, df = 1, $p = .218$ for favorable/unfavorable; $F = 0.56$, df = 1, $p = 0.417$ for likes/dislikes).

Table 4 about here

In sum, the meta-ambivalence item appears to be more malleable and context-dependent than either of the operative measures. This suggests that the latter may be more valid indicators of ambivalence.

Ambivalence and Attitude Stability

An examination of their relationships with attitude stability (Craig, Martinez, and Kane 2005; Armitage and Connor 2000; Bassili 1996) permits us to assess the construct validity of the various subjective and operative ambivalence measures. Specifically, we expect that people who are most ambivalent will exhibit less stable attitudes about the federal government over time. The design of the 2006 ANES Pilot Study provides a test of that proposition. All respondents in the Pilot Study had also participated in the traditional 2004 ANES survey, and are thus part of a two-year panel. As in the past, the 2004 ANES included the question,

> How much of the time do you think you can trust the government in Washington to do what is right – just about always, most of the time, or only some of the time? (V045197)

as part of a four-item battery designed to measure trust in government.

In 2006, the Pilot Study posed three versions this question. One group of 219 respondents was given the standard wording (V06P654), thereby allowing us to observe directly the stability of trust over a two-year period. Another group (N = 238) was asked how much of the time ("always, most of the time, about half the time, once in awhile, or never") they felt the government in Washington could be trusted to "make decisions in a fair way" (V06P656) and "do what is best for the country." (V06P658) A third group (N = 218) was asked what percentage of the time they felt the government in Washington could be trusted to "make decisions in a fair way" (V06P660) and "do what is best for the country." (V06P662)[6] The correlation between "fair decisions" and "do what is best" is high in the second (tau_b = .513, $p < .001$) and third groups (tau_b = .694, $p < .001$), so in each instance these items were combined into an index. Once again, we anticipate that less ambivalent respondents will exhibit greater stability from 2004 to 2006 on

the standard trust question, and higher over-time correlations between standard trust in 2004 and the experimental trust questions in 2006.

Table 5 shows that this expectation is modestly supported with the meta-ambivalence measure: Respondents who reported less internal conflict in their thoughts and feelings about the federal government were indeed more stable in their answers to the standard trust question than were those who indicated greater conflict. The over-time tau_b correlation for that item was .352 among individuals with low subjective ambivalence ("not at all" or "slightly" conflicting), compared with a trivial .142 for the highly ambivalent ("very" or "extremely" conflicting). With regard to the relationship between old and new measures of trust, the evidence is mixed: As we expected, the correlation between 2004 trust and the "how often best and fair" index in 2006 is highest (tau_b = .466) among respondents who felt the least conflicted. In contrast, the correlation between 2004 trust and the "percentage best and fair" index in 2006 is strongest (tau_b = .508) for the high-ambivalence group.

Table 5 about here

Results for the operative favorable/unfavorable measure are somewhat inconsistent as well. On the one hand, people who were more ambivalent (scores of zero and above) based on separate favorable/unfavorable evaluations actually have slightly *higher* over-time correlations (tau_b = .384) on the trust-Washington item than did those who exhibited less ambivalence (.320). More in line with our hypothesis, however, correlations between 2004 trust and the two new 2006 indices are substantially higher (.342 for "how often best and fair", .616 for "percentage best and fair") among those with low scores on operative ambivalence (compared with .280 and .196, respectively, for everyone else).

The operative likes/dislikes measure did not fare as well on this test, with correlations between the 2004 trust-Washington item and all three 2006 trust questions being slightly *higher* among those with greater ambivalence (scores of zero and above). Overall, then, evidence of a moderating effect on attitude stability is mixed for both meta-ambivalence and the favorable/ unfavorable measure, and is non-existent for likes/dislikes.

Ambivalence, Trust, and Vote Choice

Our next test of construct validity is based on the premise that ambivalence moderates not only over-time stability, but also the relationship between attitudes and actual or intended behavior (Sparks, Harris, and Lockwood 2004). If we consider ambivalence about the federal government to be an attribute of the attitude of political trust, we would expect that high levels of ambivalence would moderate any relationships between trust and behavior. One intended behavior that is theoretically related to trust is vote choice, with greater cynicism increasing the likelihood of support for out-party candidates in two-candidate races and third-party candidates in three-way races (Hetherington 1999). Respondents in the 2006 Pilot Study were asked to imagine this interesting scenario:

> "Suppose that an election were being held today that would determine who the President of the United States is for the next four years. And imagine that the only candidates allowed to run in that election were Bill Clinton and George W. Bush. And imagine that you voted in that election. Who would you vote for: Bill Clinton or George W. Bush?"[7] (V06P774)

If trust at least partially reflects some assessment of the incumbent administration, as Hetherington (1999) suggests, we might expect that the trusting will be more likely to support Bush over his predecessor in this hypothetical horserace. That expectation is borne out in our

estimate of a logit model reported in Table 6 Model 1. Political trust (as measured with the "trust Washington to do what is right" item asked of 219 respondents in the 2006 Pilot Study) has a significant positive effect on the likelihood of supporting Bush, controlling for 2004 partisanship and 2006 response-order effects (see note 7). The overall impact of trust in this model is quite stunning; for example, the average probability of a Bush "vote" by a pure independent (who was offered the Bush response first) increases from 21.9% for someone who trusts the government in Washington "only some of the time" to 40.0% for someone who trusts Washington "most of the time."

Table 6 about here

In Table 6 Model 2, we add the subjective ambivalence term and its interaction with trust. If ambivalence moderates the effect of trust on voter choice, we would expect to see a significant negative coefficient for the interaction term, which would indicate that the effect of trust on voter choice diminishes as ambivalence increases. However, our estimates here provide no evidence of a moderating effect for the meta-ambivalence measure. In this specification, the main effect of trust switches signs and loses significance, and neither the main effect of meta-ambivalence nor the interaction term have significant effects on the hypothetical vote choice ($p > .10$ for both).

The moderation prediction also does not pan out in Model 3, which includes the favorable/unfavorable operative ambivalence measure and its interaction with trust. Despite the loss of cases (mainly due to only half the sample being asked this set of operative ambivalence questions), the main effect of trust remains positive and significant ($p < .08$) controlling for both operative ambivalence and the interaction term. The main effect of operative ambivalence is negative (anti-Bush), but not significant. More importantly, the interaction term is positive (contrary to our expectations) and statistically not discernible from zero. In sum, we see no

evidence that the favorable/unfavorable operative ambivalence moderates the effect of ambivalence on vote choice.

Model 4 includes the likes/dislikes measure as well as the interaction of that variable with political trust. In this estimation, the main effect of operative ambivalence is negative (anti-Bush) and significant, while the main effect of trust switches signs and loses significance (the negative coefficient indicating that among people with a zero score on operative ambivalence, trust is associated with a somewhat *lower* likelihood of supporting the incumbent). The interaction effect between ambivalence and trust is positive and significant, which does suggest that the direction of the relationship between trust and vote choice is conditioned by ambivalence. However, the negative (and non-significant) main effect of trust was unexpected and inexplicable given our current understanding of the theoretical relationship between trust and voter choice. Overall, we do not find strong evidence that ambivalence moderates the pro-incumbent effects of trust on voter choice, with either meta-ambivalence or the operative ambivalence measures.

Ambivalence and Political Interest

Prior research on how ambivalence shapes political information processing suggests an examination of the relationship between ambivalence and political interest. Our definition of ambivalence might lead us to expect that the relationship would be a positive one; after all, in order to simultaneously hold conflicting evaluations of the same attitude object, one must have at least two thoughts (one positive and one negative) about the object. An increasing number of thoughts in a domain increases the probability that some of those thoughts will have opposite valences, thereby leading to greater ambivalence. If our logic here is correct, it seems reasonable to predict that there will be a positive correlation between interest and ambivalence.

It is possible, however, that ambivalence operates as an independent rather than a dependent variable in this relationship. Returning to the distinction between potential ambivalence (when conflicting attitudes coexist) and felt ambivalence (when that conflict is accessible in memory and produces cognitive discomfort; see note 3), scholars disagree about the likely consequences of the latter. Some argue, for example, that the dissonance associated with felt ambivalence should motivate information seeking and systematic information processing in an attempt to *resolve* the ambivalence (Meffert, Guge, and Lodge 2000; McGraw and Bartels 2005). But others maintain that meta-ambivalence is negatively associated with domain-specific interest due to people's efforts to *avoid* the psychological discomfort associated with ambivalence (Holbrook and Krosnick 2005).

In Table 7, we report the correlations between ambivalence and various measures of political interest included in both the Pilot Study and the 2004 pre-post election study. In general, meta-ambivalence is *positively* but weakly correlated with most measures of political interest (the exception being "how often R pays attention" in 2006). The correlations between political interest and operative ambivalence based on likes/dislikes are also mostly positive though even weaker than those for meta-ambivalence, while operative ambivalence based on favorable/unfavorable evaluations is statistically unrelated to political interest.

Table 7 about here

Ambivalence and Partisanship

Political campaigns often serve to highlight the different conceptions that our two major parties have about the role that government should play in regulating citizens' economic, social, and moral behavior. Although one might normally expect that strong partisans on both sides would experience less ambivalence regarding the federal government, the limited evidence we

have on that topic is inconsistent. McGraw and Bartels (2005), for example, found that partisan strength was positively associated with ambivalence about Congress, but not with ambivalence about President Clinton or the Supreme Court. Citrin and Luks (2005), on the other hand, reported that independents were somewhat less emotionally ambivalent about America than either Republicans or Democrats, and that ideological moderates were less ambivalent than liberals or conservatives.

Results in Table 8 show that ambivalence about the federal government (using either meta-ambivalence or the operative measures) is essentially unrelated to strength of partisanship or ideological extremity in 2004-06. The few statistically significant relationships that we observe suggest a mild positive relationship between ambivalence and partisan strength, but are very weak in magnitude ($tau_b < .13$). Moreover, ambivalence is not associated with an increased likelihood of preference for divided over unified government (as measured in 2004).

Table 8 about here

Summary and Discussion

In this paper, we examined the validity of one subjective and two operative measures of ambivalence about the federal government. Our first test considered whether these indicators were susceptible to context effects stemming from variations in question order and response-option order in the 2006 ANES Pilot Study survey. Although we found no significant effects for the operative measures, meta-ambivalence proved to be quite sensitive to both types of variations. That is, respondents reported experiencing less internal conflict (a) when low-conflict response options preceded high-conflict options; and (b) after first being asked either to verbalize their likes and dislikes about the federal government, or to provide separate favorable and

unfavorable evaluations. The relative malleability of the meta-ambivalence measure would seem to raise serious doubts about its validity.

Further tests of construct validity were less conclusive. Prior research has established that ambivalence fosters attitude instability, and that it sometimes moderates the relationship between attitudes and other attitudes or behavior (actual or intended). Accordingly, we anticipated that people with lower levels of ambivalence would exhibit greater two-year stability on a standard ANES political trust item, as well as higher correlations between that item in 2004 and new measures of trust asked in the Pilot Study two years later. However, while meta-ambivalence was predictably related to the over-time (in)stability of traditional trust, correlations between old and new measures were, in one instance, actually highest among the *most* subjectively ambivalent. The measures of operative ambivalence fared little better: Correlations between old and new trust questions were indeed lower among the most ambivalent respondents (based on favorable/ unfavorable evaluations), but those same individuals exhibited slightly *higher* two-year stability for "trust Washington to do what is right." Respondents who scored relatively high on likes/ dislikes operative ambivalence also showed slightly higher over-time stability on measures of trust. Neither meta-ambivalence nor the operative measures reliably moderated the relationship between trust and support for President Bush in a hypothetical matchup with former President Clinton. Taken together, the results of our various construct validity tests are not very encouraging for researchers eager to include either subjective or operative measures of ambivalence in omnibus surveys;[8] in addition, they raise serious concerns about the relatively high susceptibility of the meta-ambivalence measure to survey context.

Nevertheless, we wish to offer a caveat based on our finding that the subjective measure of ambivalence was positively related to political interest, while the operative measure was not.

That result[9] is consistent with research suggesting that the two approaches are not measuring the same thing, but instead tap different concepts. *Felt* ambivalence is, by definition, subjective, which may explain why no one to our knowledge has developed an operative measure of it for use in either experimental or survey contexts. Similarly, *potential* ambivalence is conceptually non-subjective, and thus always measured operatively. To the degree that researchers are interested in the causes or effects of *felt* ambivalence, they have no choice but to rely on some subjective measure, though our concerns about the validity of this particular subjective measure (as applied to this attitude object) suggest some degree of caution.

Notes

1. Much of that research is reviewed in Craig and Martinez (2005a, 2005b).

2. We agree with those who maintain that conflict between idea elements (as opposed, for example, to the more general "opposing considerations" described by Zaller and Feldman) is a necessary and defining characteristic of ambivalence (Alvarez and Brehm 1995; Craig, Kane, and Martinez 2002).

3. Some scholars believe that operative and subjective measures may tap fundamentally different concepts. Newby-Clark, MacGregor, and Zanna (2002, 2005), for example, distinguish between "potential" ambivalence, referring to the existence of concurrent and conflicting attitudes, and "felt" ambivalence, defined as the *simultaneous accessibility* of those conflicting attitudes in working memory. In other words, the presence of attitude conflict, which might be best measured operatively, is necessary but not always sufficient to produce felt ambivalence, which might be best measured subjectively (Holbrook and Krosnick 2005).

4. The relationship between subjective and operative measures of ambivalence does not appear to be as strong as one might expect. For example, when Thompson, Zanna, and Griffin (1995; also see Mulligan 2007) compared subjects' operative scores with their personal assessments regarding feelings of conflict (i.e., "I find myself feeling 'torn' between two sides of the issue of euthanasia"), they found only moderate correlations (not exceeding .40) between the two. Based on similar results, Priester and Petty (2001: 29) concluded that operative measures "account for only a moderate amount of the variance associated with the reported psychological experience of ambivalence."

5. The Pilot Study sample of 675 respondents was drawn from the 1211 individuals who participated in the 2004 American National Election Study post-election survey. Interviews were

conducted by telephone from November 13, 2006 through January 7, 2007. All analyses reported here, except for the logit results in Table 6, were weighted using the 2006 Pilot Study weight variable. The Pilot Study was supported by the National Science Foundation under grants SES-0535332 and SES-0535334, Stanford University, and the University of Michigan; more information is available at http://www.electionstudies.org/studypages/2006pilot/2006pilot.htm. Our opinions, findings, conclusions, and recommendations do not necessarily reflect the views of the NES staff or funding organizations.

6. Pilot study respondents were also asked about their trust in state governments with versions of the standard and experimental trust questions. Because the focus of the ambivalence measures was on the government in Washington, we did not examine the items measuring trust in the states.

7. Half of the respondents were asked the hypothetical horserace question with Bush's name first.

8. We hasten to add that "the federal government in Washington" (as opposed to something less amorphous such as "President Bush" or "it should be possible for a pregnant woman to obtain a legal abortion if the woman's own health is seriously endangered by the pregnancy") may not be the attitude object most conducive to producing the hypothesized results.

9. Along the same lines, our analysis shows that political trust (as measured with either the traditional ANES item or the two new measures introduced in 2006) is positively correlated with meta-ambivalence, but negatively correlated with operative ambivalence.

Figure 1: Distributions of Two Measures of Operative Ambivalence

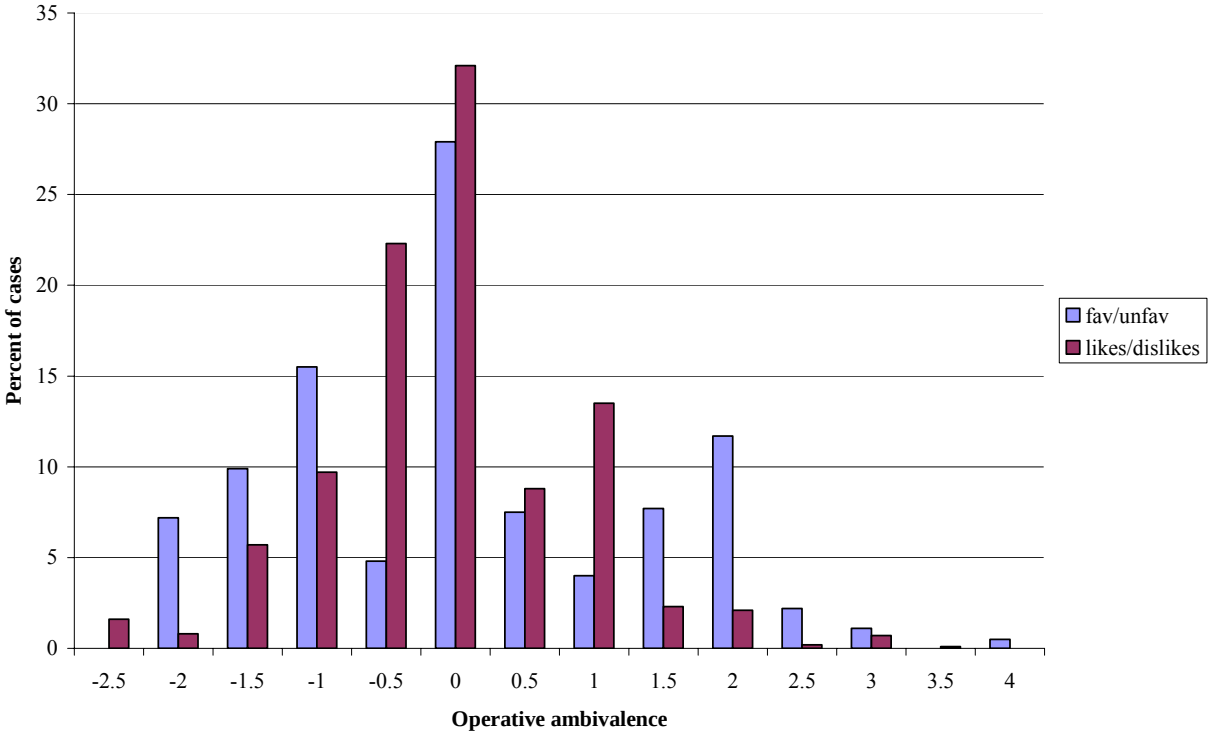

Table 1
Effect of Response-Order on Meta-Ambivalence

	Forward (beginning with "Extremely conflicting")	Reversed (beginning with "Not conflicting at all")	Total
Not conflicting at all	11.7%	13.9%	12.9%
Slightly conflicting	19.3%	31.2%	25.3%
Moderately conflicting	37.7%	35.9%	36.8%
Very conflicting	22.0%	14.2%	18.1%
Extremely conflicting	9.3%	4.7%	7.0%
Number of cases	332	337	669
Tau $_b$	-0.143		
significance	0.000		

Table 2
Effect of Response-Order on Favorable and Unfavorable Thoughts

	Favorable thoughts			Unfavorable thoughts		
	Forward	Reversed	Total	Forward	Reversed	Total
None	45.1%	47.9%	46.5%	32.9%	33.7%	33.3%
Slightly	6.8%	11.5%	9.2%	9.1%	12.0%	10.6%
Moderately	36.4%	32.1%	34.3%	22.6%	24.1%	23.3%
Very	11.1%	7.3%	9.2%	17.1%	18.7%	17.9%
Extremely	0.6%	1.2%	0.9%	18.3%	11.4%	14.8%
Number of cases	162	165	327	164	165	329
Tau $_b$	-0.054			-0.049		
significance	0.295			0.329		

Table 3
Distribution of Respondents in Response-order and Question order conditions

	Response Order		
Question Order	Forward	Reverse	Total
Meta first, then operative favorable/unfavorable	96	61	157
Operative likes/dislikes first, then meta	77	103	180
Operative favorable/unfavorable first, then meta	81	100	181
Meta first, then operative likes/dislikes	89	68	157
Total	343	332	675

Table 4
Effects of Response Order and Question Order on Ambivalence measures

	Meta-ambivalence		Operative (fav/unfav)		Operative (likes/dislikes)	
	Forward	Reverse	Forward	Reverse	Forward	Reverse
Question Order						
Op (fav/unfav) first, then meta	2.95	2.25	0.18	-0.17	NA	NA
Op (likes/dislikes) first, then meta	2.80	2.63	NA	NA	-0.17	-0.03
Meta first, then op (fav/unfav)	2.97	2.94	0.16	0.17	NA	NA
Meta first, then op (likes/dislikes)	3.19	2.97	NA	NA	-0.02	-0.04

Entries are mean ambivalence scores for each question-order and response-order category.

F-test	F	df	sig	F	df	sig	F	df	sig
Question-order effects	6.87	3	0.000	1.19	1	0.276	0.58	1	0.445
Response-order effects	11.17	1	0.001	1.29	1	0.257	0.40	1	0.527
Interaction	2.92	3	0.033	1.52	1	0.218	0.56	1	0.417

Table 5

Tau_b correlations between 2004 Trust DC to do what is right and 2006 Pilot Measures of Trust

		Meta-ambivalence		
	All Respondents	Low	Medium	High
Trust DC to do what is right	**0.304**	**0.352**	**0.240**	0.142
	(212)	(85)	(68)	(59)
Trust DC best and fair summed	**0.364**	**0.466**	**0.306**	**0.306**
- (category resp.)	(228)	(81)	(96)	(49)
Trust DC best and fair summed	**0.464**	**0.397**	**0.436**	**0.508**
- (percent resp.)	(204)	(79)	(68)	(55)

	Operative (fav/unfav)		Operative (likes/dislikes)	
	< 0	≥ 0	< 0	≥ 0
Trust DC to do what is right	**0.320**	**0.384**	0.220	**0.237**
	(37)	(68)	(37)	(69)
Trust DC best and fair summed	**0.342**	**0.280**	**0.380**	**0.412**
- (category resp.)	(35)	(67)	(59)	(66)
Trust DC best and fair summed	**0.616**	0.196	**0.446**	**0.567**
- (percent resp.)	(50)	(58)	(36)	(60)

Entries are tau_b coefficients between Trust DC (2004 post) and 2006 pilot measure by level of ambivalence

Number of cases are in parentheses

Table 6
Logit Model Estimates of Hypothetical Vote Choice (Bush = 1, Clinton = 0)

	Model 1			Model 2		
	Coeff.	s.e.	sig.	Coeff.	s.e.	sig.
Text Order: Bush first	-0.869	0.384	0.023	-0.865	0.394	0.028
Party ID 2004	0.850	0.112	0.000	0.859	0.114	0.000
Trust DC 2006	0.781	0.396	0.048	-0.528	1.085	0.627
Meta-ambivalence				-1.314	0.970	0.176
Meta-ambivalence by Trust DC 2006				0.523	0.425	0.218
Constant	-4.515	1.041	0.000	-1.166	2.592	0.653
Number of Cases	208			208		
-2 log likelihood	177.420			175.284		
Nagelkerke R^2	0.542			0.550		

	Model 3			Model 4		
	Coeff.	s.e.	sig.	Coeff.	s.e.	sig.
Text Order: Bush first	-0.436	0.583	0.455	-1.100	0.605	0.069
Party ID 2004	0.983	0.188	0.000	1.005	0.205	0.000
Trust DC 2006	1.180	0.666	0.076	-1.438	0.921	0.118
Operative ambivalence (fav/unfav)	-0.667	1.302	0.609			
Operative ambivalence (likes/dislikes)				-10.267	3.968	0.010
Op Ambiv by Trust DC 2006	0.463	0.589	0.431	5.071	1.911	0.008
Constant	-6.646	1.936	0.001	-0.062	1.939	0.974
Number of Cases	105			102		
-2 log likelihood	76.104			73.815		
Nagelkerke R^2	0.621			0.646		

Table 7
Correlations between Measures of Interest and Ambivalence

	Operative fav/unfav	Operative likes/dislikes	Meta-ambivalence
Interest in information	-0.014	**0.127**	**0.202**
- 2006 pilot	(175)	(168)	(340)
How closely pay attention	-0.057	0.114	**0.181**
- 2006 pilot	(176)	(168)	(341)
How often pay attention	-0.070	-0.027	0.078
- 2006 pilot	(176)	(168)	(341)
Attention to campaigns	-0.102	0.089	**0.167**
- 2006 pilot	(156)	(175)	(333)
Follow govt and public affairs	-0.044	**0.158**	**0.218**
- 2006 pilot	(156)	(175)	(333)
Interest in following campaigns	-0.035	**0.092**	**0.132**
- 2004 Pre	(332)	(343)	(674)
Interested in political campaigns	0.001	**0.139**	**0.172**
- 2004 Post	(315)	(329)	(643)
Did R vote in 2004?	-0.033	**0.102**	**0.108**
- 2004 Post	(315)	(329)	(643)

Entries are tau_b coefficients **(Bold indicates $p < .05$)**
Numbers of cases are in parentheses.

Table 8
Correlations between Partisan/Ideological Strength,
Preference for Divided Government, and Ambivalence

	Operative fav/unfav	Operative likes/dislikes	Meta-ambivalence
Party id Strength (Gen Speaking)	-0.030	0.003	**0.129**
- 2006 Pilot	(154)	(171)	(324)
Party id Strength (As of today)	-0.005	0.075	-0.022
- 2006 Pilot	(175)	(168)	(343)
Party id Strength (Gen Speaking)	-0.015	**0.100**	**0.066**
- 2004 Pre	(327)	(340)	(666)
Ideological Strength	0.029	**0.120**	-0.039
- 2004 Post	(252)	(284)	(536)
Preference for Divided Govt	-0.052	-0.044	0.061
- 2004 Pre	(325)	(332)	(655)

Entries are tau_b coefficients **(Bold indicates $p < .05$)**
Numbers of cases are in parentheses.

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